Sub: Provision of Class 10,000 air quality in the Common Tissue Culture Lab

SQUILWRINT NOSIS Sperity institutions entering and commissioning of latine fans: complete with insulation and 3 speed regulator and wiring with DF switch Seed placement of faithfunding agreement Seed placement of subtracting and commissioning of fabricand at size GSS sheet mored extengilatoriumid during complete with response Seed Seed placement	Item		Description	Unit	Qty	Rate	Amount
1. NOSE South installation entering and commissioning of hilline fams crospice with instalation and 3 speed regulator and writing with DP works. Sets 1. Sets South				Cant	Qiy	-xucc	- amount
subility planement of following capacity Section Se			Supply installation testing and commissionig of Inline fans complete with insulation and 3 speed regulator and wiring with DP switch				
De Sepply, installation, balancing and commissioning of fibricand at the CSS sheet aneal rectangularizound ducting complex with respect and present globals, pilotos, splines dangers, traits, hauges, supports etc. as per approved drawings and specifications of fibriologic phere laborated paths and the complex of the comp			with plenum of following capacity				
nobber gankere, shows, spliner dampers, supports etc. as per approved dawings and specifications of following sheet 2. Not 10 1	1		BUU CMH/ 6 mm Static	Sets	1		-
2.1 Before 2.2	2	DSR	rubber gaskets, elbows, splitter dampers, vanes, hangers, supports etc. as per approved drawings and specifications of following sheet				
Ref 12 R	2.1	Ref no		Sqm.	110		
NOSE Supply, fishtication, installation and testing the fleshile connections controved of the restance flexible double como sheve as per the approved shop Spin 1	0.0				20		
learning of the control of the contr	2.2		Thickness 0.80 mm sheet	Sqm.	20		
In Column Description De	3	NDSR	Supply, fabrication, installation and testing the flexible connections constructed of fire resistance flexible double canvas sleeve as per the approved shop drawings.	Sqm.	1		
Solid Perform 10.5 Supplying, Fixing, esting and commissioning of fire dampers in supply air ductions hanch and return air path as and where required of supply air discretion in the path and path as and where required of supplying the same is case of prover being restored. The spring return as its concern the damper shall be inhality michanism and not externally instituted in the path of the path	4			Sqm.	0.5		
required sizes is counted wiring the damper shall be montated and spring return are to as to close the damper in the event of power failure automated) and one the same in case of power being returns of the reging eleman facts had be the influent mechanism and not externally associated. The damper shall also be closeld in the revers of the signal complete as required earlies per specifications. 8. Ref In 10. Electric actuator with necessary linkage to actuate fire dampers complete with required wiring and associated accessories. 8. Nos. 1 8. Nos. 1 8. Nos. 1 8. Nos. 1 8. Nos. Supplying a fixting of opposed blade aluminium construction volume control dampers in supply air duct rollars as per approved drawings. 8. Supplying a fixting of opposed blade aluminium construction volume control dampers in supply air duct rollars as per approved drawings. 8. Supplying a fixting of opposed blade aluminium construction volume control dampers in supply air duct rollars as per approved drawings. 8. Supplying a fixting of opposed blade aluminium construction volume control dampers in supply air duct rollars as per approved drawings. 8. Supply and installation of External Thermal insulation on ducts with cross linked nitrile rubber class O as per the approved greater than the supplied of the supp							
Nose: Fire dampers shall be supplied with sensors incutators control et duly factory fitted and tested at manufactures works and control of the control of t	5.1	Ref no 16.2	required sizes I/c control wiring,the damper shall be motorized and spring return so as to close the damper in the event of power failure automatically and open the same in case of power being restored. The spring return action shall be inbuilt mechanism and not externally mounted. The damper shall also be closed in the event of fire signal complete as required andas per specifications.	Sqm	1		
Note: Fire dampers shall be supplied with sensors/actuators/control etc duly factory fined and tested at manufacturers works and certificate to this effect produced along with delivers of fire damper. NDSR Supplying & Rising of goposed blade aluminium construction volume control dampers in supply air duct collars as per approved drawings. NDSR Supplying & Rising of goposed blade aluminium construction volume control dampers in supply air duct collars as per approved drawings. NDSR Supplying & Rising of goposed blade aluminium construction volume control dampers in supply air duct collars as per approved drawings. Indicate the building. Supply and installation of External Thermal insulation on ducts with cross linked nitrile rubber class O as per the approved government of the production o	5.2	Ref no 16 2		Nos	1		
ecrificate to this effect produced along with delivery of fire damper. NDSR Supplying & fixing of opposed blade aluminium construction volume control dampers in supply air duct collars as per approved drawings Spring and installation of External Thermal insulation on ducts with cross linked nitrile rubber class O as per the approved produced installation of a stream of the production of	J.2						
and specifications. Nos Supply and installation of External Thermal insulation on ducts with cross linked nitrile rubber class O as per the approved per specifications. Quarter price shall be inclusive of adhesive, upes as per specification. Installation for air ducts. Supply and installation for air air air air air air air air air ai							
specifications. Quoted price shall be inclusive of adhesive, tapes as per specification. In this time be building to the control of the cont	6	NDSR		Sqm.	2		
13 mm thick insulation for air ducts. Sqm 140	7		specifications. Quoted price shall be inclusive of adhesive, tapes as per specification.				
Second Process Supply and fixing of 50 mm thick resin bonded fiber glass insulation of 24 kg/cum density, after applying 2 coats of CPRX compound scaling all joints with aluminium tape, covering with 0.63 mm x 19 mm GI wire mesh, netting, butting all joints and laced with GI wire complete and fully covered with 1 layer of tarfelt stuck with hot bitumin to give a smooth finish as per specifications and as required complete in all respect. Supply of following Double skin Air Handling unit with thermal break, including control cabeling and earthing appx 50 mtr length as per attached specifications & litting positioning connecting at all floors specified of the process				Sam	140		
sealing all joints with aluminium tape, covering with 0.63 mm x 19 mm GI wire mesh, netting, butting all joints and laced with GI wire complete and fully cowered with 1 layer of tarfelt stuck with hot bitumin to give a smooth finish as per specifications and as required complete in all respect. Exposed to atmosphere Supply of following Double skin Air Handling unit with thermal break, including control cabeling and earthing appx 50 mtr length as per attached specifications & litting positioning connecting at all floors NDSR 2000 CFM, 8 HP coiling coil, Backward curved blower, 110 mm Total pressure. (double decker type fitting with micro and hepa filter as specified) NDSR 3600 CFM, 16 HP coiling coil, Backward curved blower, 110 mm Total pressure. Variable refrigerant volume modular type air-conditioning system suitable for cooling and heating by using all inverter driven capacity control compressors complete with indoor and outdoor units, COP at 100% should be minimum 3.5 at 35 C (AHRI Conditions) with specification of the control compressors complete with indoor and outdoor units, COP at 100% should be minimum 3.5 at 35 C (AHRI Conditions) with specific control compressors complete with indoor and outdoor units, COP at 100% should be minimum 3.5 at 35 C (AHRI Conditions) with specific control compressors complete with indoor and outdoor units, such as a specific control compressors complete with indoor and outdoor units, such as a specific control compressors complete with indoor and outdoor units, such as a specific control compressor complete with indoor and outdoor units, such as a specific control compressor complete with indoor and outdoor units, such as a specific control compressor complete with indoor and outdoor units, such as a specific control compressor complete with indoor and outdoor units units of following interconnecting pipes one end expanded refrigerant copper pipe work for Variable Refrigerant Volume units of following outer diameter, insulated with 19/13 mm thick XLPE closed cell elec			AN THE CHARLES IN THE CHARLES	Jqiii	140		
Supply of following Double skin Air Handling unit with thermal break, including control cabeling and earthing appx 50 mtr length as per attached specifications & lifting positioning connecting at all floors NDSR 2000 CFM, 8 HP colling coil, Backward curved blower, 110 mm Total pressure. (double decker type fitting with micro and hepa filter as specified) NDSR 3600CFM, 18 HP colling coil, Backward curved blower, 110 mm Total pressure. (double decker type fitting with micro and hepa filter as specified) Variable refrigerant volume modular type air-conditioning system suitable for cooling and heating by using all inverter driven capacity of the minimum 3.5 at 35 C (AHRI Conditions) with individual controller, electronic expansion valve and fittings etc. as per quantity given below including full charging of R = 110A refrigerant aga (according to piping length) complete ic powder coating complete as per specifications including full charging of R = 110A refrigerant regions and according to piping length) complete ic powder coating complete as per specifications including full charging of R = 110A refrigerant regions and double earthing 5 squmm dia (60 mtr appx). Nos 2 2 11 S/IT/C of Exhaust air purification unit with inlet and outlet air volume control damper 12 Refrigerant piping with following interconnecting pipes one end expanded refrigerant copper pipe work for Variable Refrigerant Volume units of following outer diameter, insulated with 13/13 mm thick intrile rubber insulation 13 Refrigerant piping with following interconnecting pipes one end expanded refrigerant copper pipe work for Variable Refrigerant Volume units of following outer diameter, insulated with 13/13 mm thick intrile rubber insulation 14 Solon and the pipe of the p	8		sealing all joints with aluminium tape, covering with 0.63 mm x 19 mm GI wire mesh, netting, butting all joints and laced with GI wire complete and fully covered with 1 layer of tarfelt stuck with hot bitumin to give a smooth finish as per specifications and as required complete in all respect.	Sqm	130		
attached specifications & lifting positioning connecting at all floors NOSR 2000 CFM, 8 HP coiling coil, Backward curved blower, 110 mm Total pressure. (double decker type fitting with micro and hepa filter as specified)							
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NDSR 3600CFM, 18 HP coiling coil, Backward curved blower, 110 mm Total pressure Variable refrigerant volume modular type air-conditioning system suitable for cooling and heating by using all inverter driven capacity control compressors complete with indoor and outdoor units, CDP at 100% should be minimum 3.5 at 35 C (AHRI Conditions) with individual controller, electronic expansion valve and fittings etc. as per quantity given below including full charging of R-410A refrigerant gas(according to piping length) complete i/c powder coating complete as per specifications including lifting positioning, etc at all floors/heights including control cabling and double earthing 5sqmm dia (60 mtr appx). 8 HP		NDSR	2000 CFM, 8 HP coiling coil, Backward curved blower, 110 mm Total pressure. (double decker type fitting with micro and hepa filter as	Nos	1		
Variable refrigerant volume modular type air-conditioning system suitable for cooling and heating by using all inverter driven capacity control compressors complete with indoor and outdoor units, COP at 100% should be minimum 3.5 at 35 C (AHRI Conditions) with individual controller, electronic expansion valve and fittings esc. as per quantity given below including full changing of R-410A refrigerant gost according to piping length) complete is pre-specifications including lifting positioning, etc at all floors/heights including control cabling and double earthing Ssqmm dia (60 mtr appx). 8 HP Nos 2 11 SJ/TI/C of Exhaust air purification unit with inlet and outlet air volume control damper 1000 CFM Refrigerant piping with following interconnecting pipes one end expanded refrigerant copper pipe work for Variable Refrigerant Volume units of following outer claimeter, insulated with 19/13 mm thick XLPE closed cell electrometric nitrile rubber trubular insulation between each set of indoor & outdoor units with outer mechanical protection of aluminum cladding for all exposed pipes as per specification 19.1 mm dia with 13 mm thick nitrile rubber insulation 20 19.5 mm dia with 13 mm thick nitrile rubber insulation 30 19.5 mm dia with 13 mm thick nitrile rubber insulation 40 10 10 10 10 10 10 10 10 10 10 10 10 10		NDSR		Nos	1		
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SI/TI/C of Exhaust air purification unit with inlet and outlet air volume control damper 1000 CFM Nos 1	10		control compressors complete with indoor and outdoor units, COP at 100% should be minimum 3.5 at 35 C (AHRI Conditions) with individual controller, electronic expansion valve and fittings etc. as per quantity given below including full charging of R-410A refrigerant gas(according to piping length) complete it/ powder coating complete as per specifications including lifting positioning, etc at all				
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sheet of 20 guage thickness, powder coated cream colour should have double blower type motor .5 HP, 1400 RPM, single phase of Make-CG/KIRLOSKAR/GEC. Aluminum material blower velocity 20-25 cum/hr with front grill fitted							
Total	15		sheet of 20 guage thickness, powder coated cream colour should have double blower type motor .5 HP, 1400 RPM, single phase of Make-	Nos	2		
			Total				

Approved Makes

- VRV- Daikin/Samsung/LG/Toshiba AHU- Edgetech/Zeco